

SUNDAY (5 <sup>TH</sup> AUGUST)	
17.00	Registration starts (open during entire event)
18.00-20.00	Get together

MONDAY (6 <sup>TH</sup> AUGUST)		
8.45-9.00	Opening Ceremony (I. Grzegory)	
9.00-10.40	Plenary Session 1 PS1 (chair: Y Nanishi)	
9.00-9.50	Anniversary Lecture: S. Porowski – Is the phase diagram of GaN anomalous in respect to other tetrahedrally bonded semiconductors? (plenary) PS1.1	
9.50 - 10.40	S. Nakamura - LED and Laser Diodes (plenary) PS1.2	
10.40-11.10	Coffee break	
11.10-12.50	Plenary Session 2 PS2 (chair: T. Suski)	
11.10-12.00	H. Amano – Transformative Electronics Based on GaN and Related Materials for Realizing Sustainable Smart Society (plenary) PS2.1	
12.00-12.50	Z. Sitar - AlGaIn - a semiconductor that nature has never intended (plenary) PS2.2	
13.00-14.00	Lunch break	
14.00-16.00	Parallel sessions: Growth and Characterization & Optoelectronic Devices Mo1 - G&CH (chair: J. Suda)      Mo2 - OPTO (chair: V. Jmerik)	
14.00-14.30	H. Fujikura - HVPE as A New Tool for Homo-Epitaxial Growth of Highly-Pure and Thick GaN Drift Layers for Power Devices (invited) Mo1.1	H. Hirayama - Recent progress of AlGaIn deep-UV LEDs by increasing light-extraction efficiency (invited) Mo2.1
14.30-15.00	Ke Xu - Growth of GaN substrate by HVPE, progress and challenge (invited) Mo1.2	S. Hagedorn - Influence of AlN/sapphire substrate properties on growth and performance of AlGaIn-based UV LEDs (invited) Mo2.2
15.00-15.30	T. Sochacki - Recent progress in HVPE-GaN growth on ammonothermally grown GaN seeds (invited) Mo1.3	Y. Park - 375-nm Optically Pumped Vertical-Cavity Surface-Emitting Lasers with Air-Gap/Al <sub>0.05</sub> Ga <sub>0.95</sub> N Distributed Bragg Reflectors (invited) Mo2.3
15.30-15.45	T. Baker - HVPE Growth of Free-Standing GaN Wafers by Interlayer Separation Mo1.4	J. Enslin - Growth of InAlGaIn for efficient UVB light emitting diodes Mo2.4
15.45-16.00	Qiang Liu - Study of Low Cost Growth of Large Size Bulk GaN Crystal Growth by a New Vertical HVPE Reactor with Showerhead Nozzle Mo1.5	Yuh-Renn Wu - Three Dimensional Simulation on the Transport and Quantum Efficiency of UVC-LEDs with Random Alloy Fluctuations Mo2.5
16.00-16.30	Coffee break	
16.30-18.30	Parallel sessions: Growth and Characterization & Optoelectronic Devices Mo3 - G&CH (chair: H. Fujioka)      Mo4 - OPTO (chair: R. Dupuis)	
16.30-17.00	Y. Kumagai - Thermodynamics on HVPE of group-III nitrides (invited) Mo3.1	V. Jmerik - Plasma-assisted molecular beam epitaxy of monolayer-thick GaN/AlN heterostructures for high efficient sub-250-nm UV emitters (invited) Mo4.1
17.00-17.15	T. Schneider - Defect and stress engineering in GaN layers grown by high temperature vapor phase epitaxy Mo3.2	Y. Itokazu - UVC LEDs on AlN/sapphire templates prepared by high-temperature annealing and regrowth process Mo4.2

<b>17.15-17.30</b>	N. Takekawa - Excess Chlorine and Growth Temperature Effects of N-Polar GaN Growth via Tri-halide Vapor Phase Epitaxy and its Theoretical Study <b>Mo3.3</b>	C. De Santi - Investigation of the Thermal Droop in InGaN-based Layers and UVA LEDs <b>Mo4.3</b>
<b>17.30-17.45</b>	I. Gamov - Carbon-doped GaN: Identification of tri-carbon defects formed at substantial fraction <b>Mo3.4</b>	M. A. Khan - Investigation of crystallinity and current injection issue in 310nm-AlGaIn UVB LED grown on AlN template in LP-MOVPE <b>Mo4.4</b>
<b>17.45-18.00</b>	F.C. Beyer - Photoluminescence of Carbon-doped HVPE GaN layers <b>Mo3.5</b>	M. Jo - UVC emission from (11-22) AlGaIn quantum wells grown by metal-organic chemical vapor deposition <b>Mo4.5</b>
<b>18.00-18.30</b>	J. Freitas – A new method to achieve efficient iron doping of HVPE GaN substrates <b>(invited) Mo3.6</b>	<b>18.00-18.15</b> P. Michałowski - Oxygen-induced high diffusion rate of magnesium dopant in GaN/AlGaIn based UV LED heterostructures <b>Mo4.6</b>

<b>TUESDAY (7<sup>TH</sup> AUGUST)</b>		
<b>8.30-10.30</b>	<b>Parallel sessions: Growth and Characterization &amp; Optoelectronic Devices</b>	
	<b>Tu1 - G&amp;CH</b> (chair: <b>H. Murakami</b> )	<b>Tu2 - OPTO</b> (chair: <b>D. Jena</b> )
<b>8.30-9.00</b>	S. Chichibu - Acidic ammonothermal growth of GaN ( <b>invited</b> ) <b>Tu1.1</b>	S. Rajan - Tunnel Junctions for Next Generation III-Nitride Optoelectronics ( <b>invited</b> ) <b>Tu2.1</b>
<b>9.00-9.30</b>	M. Zajac - Basic ammonothermal growth of GaN ( <b>invited</b> ) <b>Tu1.2</b>	G. Muziol - Long-living laser diodes grown by plasma assisted molecular beam epitaxy ( <b>invited</b> ) <b>Tu2.2</b>
<b>9.30-9.45</b>	K. Endo - Fabrication of GaN Crystals with Low Threading Dislocation Density as well as Low Resistivity Grown with Thin-Flux-Growth Method in Na-flux Point Seed Technique <b>Tu1.3</b>	N. Chery - Structural Investigation Of InGaN/GaN Heterostructures Quantum Wells For Long Wavelength Emission <b>Tu2.3</b>
<b>9.45-10.00</b>	T. Yamada - Reduction of Li impurity in the Freestanding GaN Substrate Fabricated by the Na-Flux Sapphire Dissolution Technique <b>Tu1.4</b>	K. Hiraiwa - AlInN/GaN DBRs for Long-wavelength GaN-based VCSELs <b>Tu2.4</b>
<b>10.00-10.15</b>	N. Takeda - The effect of undissolved carbon on GaN crystal growth in Na flux method <b>Tu1.5</b>	S. Ishimoto - Improvement of emission efficiency in green LEDs by sputtered AlN buffer layer <b>Tu2.5</b>
<b>10.15-10.30</b>	Zionglang Liu - Growth of GaN Single Crystal by Na Flux Method Adding Nitrogen-doped Carbon <b>Tu1.6</b>	E. Iliopoulos - Kinetic Mechanisms of InGaN(0001) by RF-MBE in the entire composition range: Phenomenological Model and Impact on Epilayer Properties <b>Tu2.6</b>
<b>10.30-11.00</b>	<b>Coffee break</b>	
<b>11.00-13.00</b>	<b>Parallel sessions: Growth and Characterization &amp; Electrical Devices</b>	
	<b>Tu3 - G&amp;CH</b> (chair: <b>H. Miyake</b> )	<b>Tu4 - ELECTRO</b> (chair: <b>T. Palacios</b> )
<b>11.00-11.30</b>	Xinqiang Wang - Growth of InN films with high electron mobility by MBE ( <b>invited</b> ) <b>Tu3.1</b>	I. Kizilyalli - Vertical Power Devices based on Bulk GaN Substrates ( <b>invited</b> ) <b>Tu4.1</b>
<b>11.30-12.00</b>	J. Han - Stacking-fault-free (20-2-1) GaN on 4" sapphire substrates: a pathway to commercialize semipolar optoelectronics ( <b>invited</b> ) <b>Tu3.2</b>	J. Suda - Electrical characterization of homoepitaxial GaN layers for GaN vertical power devices ( <b>invited</b> ) <b>Tu4.2</b>
<b>12.00-12.15</b>	S. Walde - MOVPE grown AlN on nano-patterned sapphire substrates with different offcut angles <b>Tu3.3</b>	Y. Tokuda - Characterization of Shallower Level Traps in p-GaN Grown by MOVPE Using Low Frequency Capacitance DLTS <b>Tu4.3</b>
<b>12.15-12.30</b>	R. Mantach - Semi polar (10-11) GaN growth on silicon-on-insulator substrates for defect reduction and melt back etching suppression <b>Tu3.4</b>	K. Kanegae - Accurate estimation of H1 trap concentration in n-type GaN layers <b>Tu4.4</b>
<b>12.30-13.00</b>	M. Sarzynski - InGaN quantum structures on patterned substrates ( <b>invited</b> ) <b>Tu3.5</b>	T. Narita - Donor states of carbon in p-type GaN grown by MOVPE ( <b>invited</b> ) <b>Tu4.5</b>
<b>13.00-14.00</b>	<b>Lunch break</b>	
<b>14.00-16.30</b>	<b>Parallel sessions: Growth and Characterization &amp; Theory</b>	
	<b>Tu5 - G&amp;CH</b> (chair: <b>R. Collazo</b> )	<b>Tu6 - THEORY</b> (chair: <b>J. Majewski</b> )

<b>14.00-14.30</b>	C. Hartmann - On the preparation of AlN single crystal boules and substrates, and subsequent epitaxy for AlGaN devices <b>(invited) Tu5.1</b>	Y. Kangawa - Theoretical study: Impurity incorporation in GaN MOVPE <b>(invited) Tu6.1</b>
<b>14.30-15.00</b>	H. Miyake - Homoepitaxy of AlN on annealed AlN/sapphire template <b>(invited) Tu5.2</b>	<b>S. Krukowski</b> - Adsorption at nitride semiconductors surfaces - electronic aspects: surface states occupation, the equilibrium pressure, growth and doping <b>(invited) Tu6.2</b>
<b>15.00-15.15</b>	I Gamov - Di-carbon defects in AlN bulk crystals grown by physical vapor transport <b>Tu5.3</b>	T. Ito - A Simple Theoretical Approach to Growth Mode of III-Nitride Thin Films <b>Tu6.3</b>
<b>15.15-15.30</b>	H. Sun - Tuning the growth of AlN epilayers on Al <sub>2</sub> O <sub>3</sub> via TMAI preflow by MOCVD <b>Tu5.4</b>	K. Ohkawa - AlGaN MOVPE Growth Simulation under 10-100 kPa Considering Polymer formation <b>Tu6.4</b>
<b>15.30-15.45</b>	H. Yoshida - Controlling the growth mode and strain of AlN grown directly on 6H-SiC(0001) substrate by metal-organic chemical vapor deposition <b>Tu5.5</b>	A. Kusaba - Relationship between the CH <sub>4</sub> Adsorption Probability and the C Impurity Concentration in the Polar-GaN MOVPE System <b>Tu6.5</b>
<b>15.45-16.00</b>	H. Zhang - Hot-wall MOCVD growth of N-polar AlN nucleation layer on C-face vicinal and on-axis SiC substrates <b>Tu5.6</b>	P. Kempisty - Contribution of first principles phonon calculations to thermodynamics analysis of GaN surfaces <b>Tu6.6</b>
<b>16.00-16.15</b>	K. Uesugi - Crystal quality improvement of sputter-deposited AlN films on SiC substrates by high temperature annealing <b>Tu5.7</b>	J. Endres - Kinetic Monte Carlo simulation of MOVPE growth/sublimation of GaN on the vicinal GaN(0001) substrate <b>Tu6.7</b>
<b>16.15-16.30</b>	M. Fijalkowski - Growth of thick AlGaN layers by HVPE method on GaN seeds <b>Tu5.8</b>	P.Strak - Catalytic potential of AlN(0001) surface for N <sub>2</sub> + H <sub>2</sub> ammonia synthesis reaction <b>Tu6.8</b>
<b>16.40-17.40</b>	<b>Tutorial session</b> <b>TS</b> (chair: <b>L. Kirste</b> )	
<b>16.40-17.10</b>	L. Grieger - Williamson-Hall Analysis on Epilayers – A critical review of common practice <b>(invited) TS1</b>	
<b>17.10-17.40</b>	M. Leszczyński - X-ray Diffraction in Nitride Technology- most common mistakes and new opportunities <b>(invited) TS2</b>	
<b>18.00-21.00</b>	<b>Poster Session</b> (chair: <b>M. Bockowski</b> )	

**WEDNESDAY (8<sup>TH</sup> AUGUST)**

<b>8.30-10.10</b>	<b>Plenary Session 3</b> <b>PS3</b> (chair: <b>I. Grzegory</b> )	
<b>8.30-9.20</b>	Y. Mori - Recent Progress of GaN Growth by Na-flux Method ( <b>plenary</b> ) <b>PS3.1</b>	
<b>9.20 – 10.10</b>	C.G. Van de Walle - Acceptors in nitrides: doping, compensation, and impact on device performance ( <b>plenary</b> ) <b>PS3.2</b>	
<b>10.10-10.30</b>	<b>Coffee break</b>	
<b>10.30-13.00</b>	<b>Parallel sessions: Characterization &amp; Theory</b>	
	<b>We1 - CH</b> (chair: <b>M. Leszczynski</b> )	<b>We2-THEORY</b> (chair: <b>S. Krukowski</b> )
<b>10.30-11.00</b>	L. Kirste - Defect Structure Analysis of GaN Substrates by Synchrotron X-Ray Diffraction Techniques ( <b>invited</b> ) <b>We1.1</b>	A. Toropov - Optical properties of 1ML GaN in AlN: what happens beyond the envelope function approach ( <b>invited</b> ) <b>We2.1</b>
<b>11.00-11.30</b>	R. Oliver - Multi-microscopy of defects in nitride semiconductors ( <b>invited</b> ) <b>We1.2</b>	K. Shiraishi - First Principles and Thermodynamic Studies on GaN MOVPE Processes ( <b>invited</b> ) <b>We2.2</b>
<b>11.30-12.00</b>	P. Ruterana - Spontaneous formation of quantum wells, ordering and composition fluctuations in (11-22) semipolar AlGaIn/GaN heterostructures grown by plasma enhanced MBE ( <b>invited</b> ) <b>We1.3</b>	D. Irving - Compensation in Si-doped AlN: Mechanisms and opportunities ( <b>invited</b> ) <b>We2.3</b>
<b>12.00-12.15</b>	Y. Yao - Observation of Dislocations in AlN Single Crystal by Using Synchrotron X-Ray Topography, Etch Pit Method and Transmission Electron Microscope <b>We1.4</b>	Y. Inatomi - A theoretical model for carbon incorporation during step-flow growth of GaN by MOVPE <b>We2.4</b>
<b>12.15-12.30</b>	Lok Yi Lee - Investigation of Stacking Faults in Zincblende GaN Grown on 3C-SiC on Si templates with TEM and XRD <b>We1.5</b>	M. Wierzbowska- Perovskite Solar Cells with n-type GaN Electrodes <b>We2.5</b>
<b>12.30-12.45</b>	K. Shida - Nanobeam X-ray Diffraction Analysis of Local Lattice Distortions in the Growth Direction of a Modified Na-Flux GaN Bulk Crystal <b>We1.6</b>	<b>12.30-13.00</b> A. Jamroz - Morphology and Electronic Structure of Carbon Doped Hexagonal Boron Nitride ( <b>invited</b> ) <b>We2.6</b>
<b>12.45-13.00</b>	J. Stranska-Matejova - Strain relaxation in InGaIn/GaN epilayers by formation of V-pit defects: XRD experiments and numerical simulations <b>We1.7</b>	
<b>13.00-14.00</b>	<b>Lunch break</b>	
<b>14.00-18.00</b>	<b>Excursion</b>	
<b>19.30-22.00</b>	<b>Gala Dinner</b>	

**THURSDAY (9<sup>TH</sup> AUGUST)**

<b>THURSDAY (9<sup>TH</sup> AUGUST)</b>		
<b>9.00-11.00</b>	<b>Parallel sessions: Electrical Devices &amp; Characterization</b>	
	<b>Th1- ELECTRO</b> (chair: <b>T. Anderson</b> )	<b>Th2 - CH</b> (chair: <b>M. Kamińska</b> )
<b>9.00-9.30</b>	T. Palacios - GaN Nanostructures (or how to Take Transistor Linearity to new Levels) ( <b>invited</b> ) <b>Th1.1</b>	T. Tanikawa - Two-photon-excitation photoluminescence and its recent progress ( <b>invited</b> ) <b>Th2.1</b>
<b>9.30-10.00</b>	D. Jena - Growth, Physics, and Applications of Tunneling Nitride Structures ( <b>invited</b> ) <b>Th1.2</b>	A. Tanaka - Observation of Dislocation Propagation in GaN on GaN Structure with a Multiphoton Excitation Photoluminescence Microscope ( <b>invited</b> ) <b>Th2.2</b>
<b>10.00-10.15</b>	Z. Feng - High Reliability and Frequency Performances of InAlN/GaN HFETs <b>Th1.3</b>	<b>10.00- 10.30</b> M. Sumiya - Evaluation of Structural Disorder and In-Gap States of III-V nitrides by Photothermal Deflection Spectroscopy ( <b>invited</b> ) <b>Th2.3</b>
<b>10.15-10.30</b>	R. Tanaka - Demonstration of GaN vertical double implanted MOSFET <b>Th1.4</b>	
<b>10.30-10.45</b>	F. Bouazzaoui - Optimized Ohmic Contacts For InAlGaN/GaN HEMTs <b>Th1.5</b>	A. Kaminska - Origin of the Yellow Luminescence in Be-doped GaN revealed by hydrostatic pressure studies <b>Th2.4</b>
<b>10.45-11.00</b>	I. Sanyal - Improving the Performance of AlInN/GaN and AlInGaN/GaN HEMTs by Using a Triethylgallium-Grown Channel Layer and Barrier <b>Th1.6</b>	K. K. Madapu - Imaging of Surface Plasmon Polaritons of 2D Plasmons of InN Nanostructures having Surface Electron Accumulation <b>Th2.5</b>
<b>11.00-11.15</b>	<b>Coffee break</b>	
<b>11.15-13.00</b>	<b>Parallel sessions: Electrical Devices &amp; Nanowires</b>	
	<b>Th3-ELECTRO</b> (chair: <b>C.Skierbiszewski</b> )	<b>Th4-NANO</b> (chair: <b>Xinqiang Wang</b> )
<b>11.15-11.45</b>	T. Anderson - Navy Application of Wide Bandgap (WBG) semiconductors enabling future Power and Energy Systems ( <b>invited</b> ) <b>Th3.1</b>	<b>11.15-11.30</b> M. Takebayashi - Fabrication and characterization of GaN nanowires optoelectronic devices <b>Th4.1</b>
		<b>11.30-11.45</b> M. Terazawa - Optical simulation of GaInN-based multi-quantum-shell (MQS)-Light-Emitting-Diodes (LEDs) <b>Th4.2</b>
<b>11.45-12.15</b>	J. Hite - Vertical Power Devices Enabled by Bulk GaN Substrates ( <b>invited</b> ) <b>Th3.2</b>	<b>11.45-12.00</b> G. Avit - Self-Induced InGaN Nanowires with a Controlled Indium Composition and Selective Area Growth of InN by HVPE <b>Th4.3</b>
		<b>12.00 -12.15</b> N. Goto - Study on emission wavelength control of GaInN multi-quantum-shell/GaN nanowire <b>Th4.4</b>
<b>12.15-12.30</b>	M. Takahashi - Characterizations of high-temperature Mg ion implantation in GaN <b>Th3.3</b>	A. Suzuki - Device fabrication of GaInN-based multi-quantum-shell LEDs <b>Th4.5</b>
<b>12.30-12.45</b>	H. Sakurai - Non-cap thermal activation process of Mg-ion implanted Ga-polar	A Kapoor - Green/Yellow/Red Emission From m-plane Core-shell InGaN/GaN Nanowires <b>Th4.6</b>

	GaN using ultra high pressure N <sub>2</sub> annealing <b>Th3.4</b>	
12.45-13.00	M. Deki - Improvement of Electrical Stability of ALD-Al <sub>2</sub> O <sub>3</sub> /GaN Interface by UV/O <sub>3</sub> Oxidation and Postdeposition Annealing <b>Th3.5</b>	H. Zhou - Insights into the Quantum Efficiency and Recombination Dynamics of InGaN/GaN Core-Shell Microrod LED Structures <b>Th4.7</b>
13.00-14.00	<b>Lunch break</b>	
14.00-16.00	<b>Parallel sessions: Growth and Characterization &amp; Optoelectronic Devices and Growth</b>	
	<b>Th5- G&amp;CH</b> (chair: <b>J. Hite</b> )	<b>Th6 - OPTO&amp;G</b> (chair: <b>J. Freitas</b> )
14.00-14.15	Y. Yamagata - In-situ observation of AlN growth on levitated Ni-Al droplet <b>Th5.1</b>	Xiaohang Li- Significantly enhanced performance for AlGaN UV LED by employing a thin BAlN electron blocking layer ( <b>invited</b> ) <b>Th6.1</b>
14.15-14.30	M. Noorprajuda - Effect of Reaction Temperature on AlN Formation at Interface of Al Layer Deposited on GaN Substrate <b>Th5.2</b>	
14.30-14.45	Y. Mogami - Evolution of morphology and crystalline quality of sputtered AlN films with high-temperature annealing <b>Th5.3</b>	P. Drózdź - Green - blue InGaN/GaN LED array obtained by lateral band-gap engineering <b>Th6.2</b>
14.45-15.00	T. Fudetani - Characteristics of highly conductive p-type GaN films prepared by pulsed sputtering <b>Th5.4</b>	M. Sawicka - InAlN growth peculiarities on vicinal GaN substrates <b>Th6.3</b>
15.00-15.15	M. Sakamoto - Improvement of electron mobility of polycrystalline InN on glass substrates by AlN buffer layers <b>Th5.5</b>	M. Deppe - Germanium doping of Cubic Al <sub>x</sub> Ga <sub>1-x</sub> N Grown by Molecular Beam Epitaxy <b>Th6.4</b>
15.15-15.30	Y. Sakurai - Structural and Electrical Properties of AlN and AlGaN Prepared by Pulsed Sputtering <b>Th5.6</b>	V. Zubialevich - Material Redistribution during Thermal Annealing of GaN Nanocolumns and Conditions for Their Maskless Overgrowth by MOVPE <b>Th6.5</b>
15.30-15.45	M. Mazraehno - Surface Morphology Control and Si-Doping of MOVPE-Grown High-Al-Content AlGa <sub>N</sub> Layers <b>Th5.7</b>	J. Kierdaszuk - Surface-enhanced Raman scattering in graphene induced by Al <sub>x</sub> Ga <sub>1-x</sub> N/GaN axial heterostructure nanowire substrate <b>Th6.6</b>
15.45-16.00	X. Shen- Effects of N <sub>2</sub> and H <sub>2</sub> carrier gases on the growth of AlGa <sub>N</sub> epilayers on Si(110) substrates by MOCVD <b>Th5.8</b>	K. Sasai - Two-step epitaxial growth of GaN nanowires by MOVPE <b>Th6.7</b>
16.00-16.30	<b>Coffee break</b>	
16.30-18.30	<b>Parallel sessions: Electrical Devices &amp; Boron Nitride and Related Materials</b>	
	<b>Th7 - ELECTRO</b> (chair: <b>M. Deki</b> )	<b>Th8-BN</b> (chair: <b>D. Hommel</b> )
16.30-17.00	G. Cywinski -EdgeFET Devices Fabricated on 2DEG GaN/AlGa <sub>N</sub> Heterostructures for Basic and Applied Sciences ( <b>invited</b> ) <b>Th7.1</b>	<b>16.30 - 16.45</b> J. Baranowski - MOCVD of Boron Nitride Films on Sapphire <b>Th8.1</b>
		<b>16.45-17.00</b> K. Pakuła - Investigation of MOVPE Boron Nitride Growth <b>Th8.2</b>



<b>17.00-17.15</b>	P. Sai - AlGa <sub>N</sub> /Ga <sub>N</sub> EdgeFET Based on Two Lateral Schottky Barrier Gates as Terahertz Detector <b>Th7.2</b>	F. Liu - Growth of BN thin films by MBE: effect of post thermal annealing <b>Th8.3</b>
<b>17.15-17.30</b>	A. Yamamoto - A Study on 2DEG Properties of AlGa <sub>N</sub> /Ga <sub>N</sub> Structures Formed on Stepped Ga <sub>N</sub> Surfaces for Vertical Power Devices <b>Th7.3</b>	<b>17.15-17.45</b> A. Wyszomtek - Excitonic spectra of ultra-thin epitaxial boron nitride layers grown by MOCVD ( <b>invited</b> ) <b>Th8.4</b>
<b>17.30-17.45</b>	Yung-Ting Ho - Modified Small-Signal Model for High Frequency Ga <sub>N</sub> -on-Si HEMT with the Leaky Buffer <b>Th7.4</b>	
<b>17.45-18.00</b>	Y. Ando - Schottky Barrier Diodes Fabricated on Miscut m-plane Substrates <b>Th7.5</b>	H. Sun - Novel BAlN/Al <sub>x</sub> Ga <sub>1-x</sub> N heterostructures for optical and power devices <b>Th8.5</b>
<b>18.00-18.15</b>	E. Lutsenko - AlGa <sub>N</sub> /Ga <sub>N</sub> HEMT Heterostructures Grown by Ammonia and Combined Plasma-Assisted/Ammonia MBE on Sapphire Substrates <b>Th7.6</b>	U. Ooe - Nitrogen Plasma Effects on MBE Growth of Ga <sub>N</sub> on Graphitic Substrate <b>Th8.6</b>
<b>18.15-18.30</b>		J. Schmitt - New AlScN growth and annealing for used as lattice matched substrate for deep UV LEDs <b>Th8.7</b>



**FRIDAY (10<sup>TH</sup> AUGUST)**

<b>FRIDAY (10<sup>TH</sup> AUGUST)</b>	
<b>8.30-10.15</b>	<b>Parallel sessions: Characterization &amp; Electrical Devices</b>
	<b>Fr1 - CH</b> (chair: <b>R. Oliver</b> )
	<b>Fr2 - ELECTRO</b> (chair: <b>G. Cywinski</b> )
<b>8.30-9.00</b>	M. Albrecht - InGaN still to be discovered <b>(invited) Fr1.1</b>
<b>9.00-9.30</b>	J. Smalc-Koziorowska - Differences in the mechanism of strain relaxation of InGaN buffer layers deposited on GaN/sapphire templates and GaN bulk substrates <b>(invited) Fr1.2</b>
<b>9.00-9.15</b>	T. Hamachi - Leakage current analysis for individual dislocations in the modified Na-flux GaN bulk single crystal <b>Fr2.2</b>
<b>9.15-9.30</b>	S. Usami - Dependency of the reverse leakage current on the MOVPE growth pressure of vertical p-n diodes on a GaN free-standing substrate <b>Fr2.3</b>
<b>9.30-9.45</b>	R. Mohamad - Investigation of the spontaneous crystallographic degradation in nearly lattice-matched InAlN layers to GaN <b>Fr1.3</b>
<b>9.45 – 10.00</b>	J. Moneta - The Upper Limit for InGaN Plastic Relaxation – Could We Obtain Fully Relaxed InGaN Layer? <b>Fr1.4</b>
<b>10.00-10.15</b>	A. Lachowski - Structural Studies of the Processes Occurring During Thermal Annealing of InGaN Quantum Wells <b>Fr1.5</b>
<b>10.15-10.45</b>	<b>Coffee break</b>
<b>10.45-12.15</b>	<b>Parallel sessions: Growth and Characterization &amp; Optoelectronic Devices</b>
	<b>Fr3 - G&amp;CH</b> (chair: <b>J. Baranowski</b> )
	<b>Fr4 - OPTO</b> (chair: <b>S. Chichibu</b> )
<b>10.45-11.15</b>	L. Janicki - Determination of the Fermi Level in Doped GaN by Contactless Electroreflectance <b>(invited) Fr3.1</b>
<b>10.45-11.15</b>	Mi-Hee Ji - Growth and Device Characterization of III-N Deep-Ultraviolet Avalanche Photodiodes and Arrays <b>(invited) Fr4.1</b>
<b>11.15-11.30</b>	H. Turski - Alloying as an effective way to increase Mg incorporation into GaN <b>Fr3.2</b>
<b>11.15-11.30</b>	S. Zlotnik - Alternative Growth Approaches of p-Type Doped AlGaIn Epitaxial Structures <b>Fr4.2</b>
<b>11.30-11.45</b>	B. Rackauskas - Self-Compensation of Carbon in AlGaIn <b>Fr3.3</b>
<b>11.30-11.45</b>	A. Hospodkova - Design of InGaIn/GaN MQW structure for scintillator applications <b>Fr4.3</b>
<b>11.45-12.15</b>	R. Collazo - Controlling Si Doping Limits in Al Rich AlGaIn: Knee Behavior and Low Doping Limits <b>(invited) Fr3.4</b>
<b>11.45-12.15</b>	N. Grandjean - Burying surface defects in InGaIn underlayer to increase blue LED efficiency <b>(invited) Fr4.4</b>
<b>12.30-13.00</b>	<b>Closing Ceremony</b> (chair: I. Grzegory and Y. Nanishi)
<b>13.00-14.00</b>	<b>Lunch</b>

<b>POSTER SESSION (TUESDAY 7<sup>TH</sup> AUGUST, 18.00-21.00)</b>	
<b>Po01</b>	Raman Spectroscopic Study of GaN Grown on (111)Si Using an AlInN Intermediate Layer by MOVPE, T. Sugiura et al., National Institute of Technology, Toyota College, Japan
<b>Po02</b>	InGaN Band Gap Compositional Dependence Determined by Means of Photoacoustic Spectroscopy, R.Oliva Vidal et al., Politechnika Wrocławska, Poland
<b>Po03</b>	TEM Investigations on High-Temperature Annealed epi-AlN on Sapphire, L. Cancellara et al., Leibniz-Institute for Crystal Growth, Germany
<b>Po04</b>	Diffusion and out-diffusion of Mn in gallium nitride, R. Jakieła et al., Institute of Physics Polish Academy of Sciences, Poland
<b>Po05</b>	Impact of Si doping in different GaN layers on luminescence properties of InGaN/GaN multiple quantum well structure, F. Hájek et al., Institute of Physics, Czech Academy of Science, Czech Republic
<b>Po06</b>	Optical modulation spectroscopy of Al <sub>x</sub> Ga <sub>1-x</sub> N epilayers and Al <sub>x</sub> Ga <sub>1-x</sub> N/GaN quantum wells in the UV spectral range, E. Zdanowicz et al., Wrocław Research Center EIT+, Poland
<b>Po07</b>	Excess Carrier Lifetime in Ammonothermal GaN Doped with Si, Mg, and Mn, Ł. Janicki et al., Wrocław University of Science and Technology, Poland
<b>Po08</b>	Influence of Depletion Layer on Spatial Distribution of Cathodoluminescence Intensity in GaN Nanowires, B. Adamowicz et al., Institute of Physics - CND, Silesian University of Technology, Poland
<b>Po09</b>	Influence of Macrosteps on Deep-ultraviolet Emission from AlGaN/AlGaN Multiple Quantum wells, K. Kataoka et al., Toyota Central R&D Labs., Inc., Japan
<b>Po10</b>	Growth of InGaN Films by Reactive Sputtering, Q. Guo et al., Saga University, Japan
<b>Po11</b>	High temperature vapor phase epitaxy for the growth of GaN layers on sapphire substrates, M. Förste et al., Institute of Nonferrous Metallurgy and Purest Materials, TU Bergakademie Freiberg, Germany
<b>Po12</b>	Study of Indium Incorporation in OMVPE Grown 200-nm Thick In <sub>x</sub> Al <sub>1-x</sub> N Layers, S. Hasenöhrl et al., Institute of Electrical Engineering, Slovak Academy of Sciences, Slovakia
<b>Po13</b>	Structure of AlN films formed by nitriding the aluminum metal layers on the (0001) sapphire substrates, A. Muslimov et al., Federal Research Center "Crystallography and Photonics", RAS, Russia
<b>Po14</b>	AlN layers grown by Ga-Al liquid phase epitaxy on nitrided r-plane sapphire substrate, N. Kanno et al., Tohoku University, Japan
<b>Po15</b>	HVPE Growth Method for Thick AlN Epilayer, H. Soo Ahn et al., Korea Maritime and Ocean University, Korea (South)
<b>Po16</b>	Mg-doped AlN Epilayer Grown by Mixed Source HVPE Method, H. Soo Ahn et al., Korea Maritime and Ocean University, Korea (South)
<b>Po17</b>	The Growth of High Al Composition Al <sub>x</sub> Ga <sub>1-x</sub> N Epilayers, Hyung Soo Ahn et al., Korea Maritime and Ocean University, Korea (South)
<b>Po18</b>	Characteristics of Epilayers in Light Emitting Diode Grown by HVPE Method, H. Soo Ahn et al., Korea Maritime and Ocean University, Korea (South)
<b>Po19</b>	Characteristics of aluminum nitride films on hexagonal boron nitride buffer layers using various growth methods through metal organic chemical vapor deposition, M. Han et al., Chonbuk National University, Korea (South)
<b>Po20</b>	Synchrotron radiation x-ray topography and defect selective etching analysis of threading dislocations in HVPE-GaN, J. Weyher et al., Institute of High Pressure Physics PAS, Poland
<b>Po21</b>	Crystallization of Thin GaN Layers by HVPE Method on Native and Foreign Substrates, M. Oklej et al., Institute of High Pressure Physics PAS, Poland
<b>Po22</b>	Highly resistive HVPE-GaN grown on native seeds – investigation and comparison of different dopants, M. Iwinska et al., Unipress, Poland
<b>Po23</b>	Highly conductive HVPE-GaN grown on native seeds – investigation and comparison of different dopants, B. Lucznik et al., Institute of High Pressure Physics PAS, Poland

<b>Po24</b>	Vacancy defects in Si and Ge doped HVPE-GaN investigated by positron annihilation spectroscopy, I. Prozhev et al., Department of Applied Physics, Aalto University, Finland
<b>Po25</b>	Growth of 2-inch HVPE-GaN doped with Si – numerical simulations and experiments, S. Sakowski et al., Institute of High Pressure Physics Polish Academy of Sciences, Poland
<b>Po26</b>	Homoepitaxial Semi Polar Growth of GaN on Ammono Seeds by HVPE, M. Amilusik et al., Institute of High Pressure Physics PAS, Poland
<b>Po27</b>	GaN crystallization from iron based solution at 1 and 6 GPa pressures – investigation of critical points of this experimental approach, B. Sadovyi et al., Institute of High Pressure Physics, Polish Academy of Sciences, Poland
<b>Po28</b>	Influence of electron concentration on chemo-mechanical polishing rate of gallium nitride wafers, G. Kamler et al., Institute of High Pressure Physics Polish Academy of Sciences, Poland
<b>Po29</b>	Growth of low Threading Dislocation Density GaN single crystal during the Na-flux Point Seed Method at low supersaturation, Y. Sawada et al., Osaka University, Japan
<b>Po30</b>	Effect of AlN Cap Protection on the Decomposition of High-Temperature Annealed GaN – M. Masłyk et al., Institute of Electron Technology, Poland
<b>Po31</b>	Increasing scintillator active region thickness by InGaN/GaN QW number, T. Vaněk et al., Czech Academy of Science, Institute of Physics, Czech Republic
<b>Po32</b>	Effect of dust contamination on GaN/InGaN multiple quantum well growth morphology, K. Kuldová et al., Institute of Physics, Czech Academy of Sciences v.v.i., Czech Republic
<b>Po33</b>	Inhomogeneous Luminescence of InGaN/GaN Quantum Wells: Effect of Growth Temperature, Carrier Gas and the Buffer Layer Growth, F. Dominec et al., Institute of Physics, v.v.i., Academy of Sciences of the Czech Republic, Czech Republic
<b>Po34</b>	Effects of Nitrogen Radical Irradiation on InN Growth by RF-MBE, F. Bin Abas et al., Ritsumeikan University, Japan
<b>Po35</b>	Influence of Different InGaN/(In)GaN Growth Modes on Indium Incorporation and Quality of Layers, T. Hubacek et al., Institute of Physics, Czech Academy of Sciences, Czech Republic
<b>Po36</b>	Use of Low Temperature Buffer Layer to Suppress the Contamination of InGaN/GaN Quantum Wells, M. Zíková et al., Institute of Physics, Czech Academy of Sciences, Czech Republic
<b>Po37</b>	UV Emitting Defects in Hexagonal Boron Nitride, K. Korona et al., University of Warsaw, Poland
<b>Po38</b>	MOVPE Growth and Surface Morphology Investigation of High Quality GaN, Al <sub>0.14</sub> Ga <sub>0.86</sub> N Epilayers and Al <sub>0.14</sub> Ga <sub>0.86</sub> N/GaN Superlattice, K. Moszak et al., Wroclaw Research Center EIT+ Sp. z o.o., Poland
<b>Po39</b>	Plasma-assisted MBE and structural properties of AlGaIn nanorods selectively grown on $\mu$ -cone patterned c-sapphire substrates, A. Semenov et al., Ioffe Institute, Russia
<b>Po40</b>	Morphology and Electrical Properties of InGaN:Mg/InGaN:Si Tunnel Junctions Grown by Plasma-assisted Molecular Beam Epitaxy, M. Žak et al., Institute of High Pressure Physics Polish Academy of Sciences, Poland
<b>Po41</b>	Influence of Mg-doped Layers on Internal Optical Losses in InGaN Laser Diodes, M. Hajdel et al., Institute of High Pressure Physics Polish Academy of Sciences, Poland
<b>Po42</b>	Comparison between MBE-grown InGaN/GaN Blue LEDs with Standard p-contact and Tunnel Junction p-contact, C. Bharadwaj et al., Cornell University, Ithaca, USA
<b>Po43</b>	Kelvin probe force microscopy study of High electron mobility transistors, A. Minj et al., Centre National de Recherche Scientifique, France
<b>Po44</b>	Probing piezoelectric polarization and hole trapping induced surface band bending at interface dislocations in InGaN/GaN heterostructures, A. Minj et al., Centre National de Recherche Scientifique, France
<b>Po45</b>	Stress and surface defects control for optimization of AlGaIn/GaN/Si(111) HEMT-type structures properties, T. Szymanski et al., Wroclaw University of Science and Technology, Poland

<b>Po46</b>	On-chip near-ultraviolet multicomponent system toward the internet of things, Yongjin Wang et al., Nanjing University of Posts and Telecommunications, China
<b>Po47</b>	Monte Carlo simulation of carbon incorporation in GaN MOVPE, S. Yamamoto et al., Kyushu University, Japan
<b>Po48</b>	Migration Energy of a N Atom around Ga Vacancy in GaN, M. Oda, Wakayama University, Japan
<b>Po49</b>	Compositional Dependence of Band Gaps in III-Nitride Semiconductor Superlattices, T. Kawamura et al., Graduate School of Engineering, Mie University, Japan
<b>Po50</b>	Electronic and Thermodynamic Properties of the AlN/diamond Interfaces – a DFT Studies, M. Sznajder et al., University of Rzeszow, Faculty of Mathematics and Natural Sciences, Poland
<b>Po51</b>	On determination of the dominant recombination mechanisms from time resolved photoluminescence in nitride semiconductor heterostructures, K. Sakowski et al., Institute of High Pressure Physics, Polish Academy of Sciences, Poland
<b>Po52</b>	Effective approach for calculating absolute surface energies of polar and semipolar planes for group-III nitrides under MOVPE conditions, T. Akiyama et al., Department of Physics Engineering, Mie University, Japan